

DI 20. (Once Amended) An isolated polypeptide selected from the group consisting of:

- a) a polypeptide comprising an amino acid sequence of SEQ ID NO:1,
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 95% identical to an amino acid sequence of SEQ ID NO:1, wherein said polypeptide has endooligopeptidase activity, and
- c) a biologically active fragment of a polypeptide having an amino acid sequence of SEQ ID NO:1, wherein said fragment has endooligopeptidase activity.

21. (As Once Amended) An isolated polypeptide of claim 20, comprising an amino acid sequence of SEQ ID NO:1.

22. (Reiterated) An isolated polynucleotide encoding a polypeptide of claim 20.

23. (Reiterated) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 22.

24. (Reiterated) A cell transformed with a recombinant polynucleotide of claim 23.

25. (Reiterated) A transgenic organism comprising a recombinant polynucleotide of claim 23.

26. (Reiterated) A method of producing a polypeptide of claim 20, the method comprising:

- a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 20, and
- b) recovering the polypeptide so expressed.

27. (Reiterated) A method of claim 26, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:1.

28. (Reiterated) An isolated antibody which specifically binds to a polypeptide of claim 20.

29. (Reiterated) A composition comprising a polypeptide of claim 20 and a pharmaceutically acceptable excipient.

30. (Reiterated) A composition of claim 29, wherein the polypeptide comprises an amino acid sequence of SEQ ID NO:1.

31. (Once Amended) A method for treating a disease or condition associated with decreased expression of functional HPRAP, comprising administering to a patient in need of such treatment the composition of claim 29.

32. (Reiterated) A method of screening a compound for effectiveness as an agonist of a polypeptide of claim 20, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 20 to a compound, and
- b) detecting agonist activity in the sample.

33. (Reiterated) A composition comprising an agonist compound identified by a method of claim 32 and a pharmaceutically acceptable excipient.

34. (Once Amended) A method for treating a disease or condition associated with decreased expression of functional HPRAP, comprising administering to a patient in need of such treatment a composition of claim 33.

35. (Reiterated) A method of screening a compound for effectiveness as an antagonist of a polypeptide of claim 20, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 20 to a compound, and
- b) detecting antagonist activity in the sample.

36. (Reiterated) A composition comprising an antagonist compound identified by a method of claim 35 and a pharmaceutically acceptable excipient.

37. (Once Amended) A method for treating a disease or condition associated with overexpression of functional HPRAP, comprising administering to a patient in need of such treatment a composition of claim 36.

38. (Reiterated) A method of screening for a compound that specifically binds to the polypeptide of claim 20, the method comprising:

- a) combining the polypeptide of claim 20 with at least one test compound under suitable conditions, and
- b) detecting binding of the polypeptide of claim 1 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 20.

39. (Reiterated) A method of screening for a compound that modulates the activity of the polypeptide of claim 20, said method comprising:

- a) combining the polypeptide of claim 20 with at least one test compound under conditions permissive for the activity of the polypeptide of claim 20,
- b) assessing the activity of the polypeptide of claim 20 in the presence of the test compound, and
- c) comparing the activity of the polypeptide of claim 20 in the presence of the test compound with the activity of the polypeptide of claim 20 in the absence of the test compound, wherein a change in the activity of the polypeptide of claim 20 in the

presence of the test compound is indicative of a compound that modulates the activity of the polypeptide of claim 20.

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